

Abstract of the Disclosure

An alloy or composite is deposited in a recess feature of a semiconductor substrate by sputtering an alloy or composite target into a recess, to form a first layer of deposited material. The first layer of deposited material is resputtered at a low angle and low energy, to redeposit the first layer of deposited material onto the bottom of the recess as a second layer of deposited material having a different stoichiometry than that of the first deposited material. In a further embodiment, a sputtering chamber ambient is comprised of argon and nitrogen. In yet a further embodiment, the resputtering step is followed by deposition of at least one layer of material with a different stoichiometry than that of the second deposited layer, to form a "graded" stoichiometry of material deposited in the recess.

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